West Virginia Department of Environmental Protection
Division of Air Quality

Fact Sheet

For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-05100002-2013**
Application Received: **5/10/2011, 6/27/2011, 10/16/2012, 11/2/2012, 1/7/2013**
Plant Identification Number: **03-054-051-00002**
Permittee: **Eagle Natrium LLC**
Facility Name: **Natrium Plant**
Mailing Address: **P.O. Box 191, New Martinsville, WV 26155**

Revised: N/A

Physical Location:	New Martinsville, Marshall County, West Virginia
UTM Coordinates:	512.70 km Easting • 4399.60 km Northing • Zone 17
Directions:	WV State Route 2, 5 miles north of New Martinsville, WV.

Facility Description

Eagle Natrium LLC owns and operates a Chlor-Alkali and Derivatives Plant in Marshall County, West Virginia commonly known as the Natrium Plant. The plant employs approximately 500 people and operates 24 hours a day, 7 days a week. The facility is located five miles north of New Martinsville, thirty miles south of Wheeling, and is built 6,850 feet above salt deposits. In 1941 the U.S. Government purchased the current plant site and began to drill the salt bed to produce the brine needed to produce chlorine (Cl_2) and caustic soda (NaOH). In addition to producing Cl_2 and NaOH, the facility produces hydrogen gas (H_2), hydrochloric acid (HCl), and calcium hypochlorite [$Ca(OCl)_2$]. The facility is a Chemicals and Allied Products facility and operates under the following SIC Codes:

Primary 2812 – Alkalies and Chlorine
Secondary 2819 – Industrial Inorganic Chemicals, Not Elsewhere Classified

The facility was formerly owned and operated by PPG Industries, Inc. Effective January 28, 2013, Georgia Gulf Corporation and the commodity chemicals division of PPG Industries, Inc. merged to form a new company named Axiall. The facility is now referred to as Eagle Natrium LLC, which is a subsidiary of Axiall Corporation.

The facility's Title V Permit is organized by Department as follows:

Title V Permit Section	Department
4.0	Power - Boilers & Associated Equipment
5.0	Power - Coal & Flyash Handling Systems
6.0	Brine
7.0	HCl
8.0	Chlorine
9.0	Cal-Hypo
10.0	Caustic
11.0	PELS™
12.0	Plant Paint Spray Booth
13.0	Emergency Generators and Pumps

The **Power Department (4.0 and 5.0)** operates three coal fired boilers (Boilers No. 3, 4, and 5) and one hydrogen fired boiler (Boiler No. 6) to generate steam and electricity for the facility. (Boilers No. 1 and 2 have been taken out of service and removed from the facility.) Boilers No. 3, 4, and 6 exhaust to Stack No. 1 (S076). Boiler No. 5 exhausts to Stack No. 2 (S482). Boilers No. 3, 4, 5, and 6 are rated with a maximum design heat input (MDHI) of 243 mmBtu/hr, 496 mmBtu/hr, 878 mmBtu/hr, and 181 mmBtu/hr, respectively. Support facilities include coal and flyash handling systems, as well as various tanks with insignificant emissions.

Boilers No. 3 and 5 utilize natural gas during startup and shutdown. Boiler No. 4 has the ability to co-fire natural gas. Boiler No. 6 burns hydrogen gas which is a by-product of the plant's chlorine production process. The hydrogen gas stream is scrubbed with caustic and should not contain any sulfur or chlorine. There is very little, if any, variation in the process producing the hydrogen gas stream. In addition, natural gas is used during the start-up of the boiler and during periods of limited hydrogen availability for flame stabilization purposes.

The **Brine Department (6.0)** (Process #017) produces brine solution for the production of chlorine. Well water is injected into underground salt cavities. The brine streams exiting the salt cavities potentially contain entrained natural gas with traces of hydrogen sulfide (H_2S). Two brine flares, the Zero Discharge Collection Tank Flare (FL002/E418) and the Raw Brine/Gas Separator Flare (FL003/E417) are used to eliminate the explosion hazard from entrained natural gas and to reduce odors from H_2S. The Zero Discharge Collection Tank collects waste brine streams from the depressurization of the brine cavities and the backwash of individual wells. The Zero Discharge Collection Tank Flare combusts the entrained gas in these waste brine streams. The Raw Brine/Gas Separator Flare combusts the entrained gas that is separated from the liquid brine stream. The brine department is also responsible for the operation of the plant package sewer treatment plant and the plant drinking water system. Neither of these facilities have any emissions or applicable requirements.

HCl Department (7.0)

The Eagle Natrium LLC Plant has not produced organic products since September 29, 2008 and the Chlorobenzene (MCB) Department was temporarily shutdown at the end of 2008. In July 2009, it was determined to permanently shutdown the MCB Department. The MCB Department formerly produced organic products and hydrochloric acid as a by-product. The former MCB Department has evolved to the current HCl Department. The department still produces hydrochloric acid, but utilizes a different process. Existing storage tanks and transfer equipment utilized by the former MCB Department are still used by the HCl Department.

In the HCl Department, hydrochloric acid is produced with two HCl synthesis units. A third HCl synthesis unit will be installed in 2013 under NSR permit R13-2046F, discussed herein. Chlorine and hydrogen produced by the chlorine circuits are sent to the units. Inside the units, hydrogen and chlorine are combusted to produce hydrogen chloride gas. The hydrogen chloride gas is then sent to the respective tails

tower on each synthesis unit. The towers are adiabatic absorbers that utilize condensate to absorb residual hydrochloric acid vapors into solution. The top of the towers vent to the atmosphere. The bottoms from the towers are routed back to the synthesis unit. The hydrochloric acid is then ready for dilution, storage, use or shipping.

In the **Chlorine Department (8.0)** three (3) circuits produce gaseous chlorine (Cl_2) from the electrolysis of sodium chloride (NaCl) brine solution. Production of the salt brine solution is discussed above under the Brine Department. Hydrogen gas (H_2) and sodium hydroxide (NaOH) are by-products from the chlorine process.

Eagle Natrium LLC uses two (2) cell technologies: diaphragm and mercury, to produce chlorine. Two of the three circuits use diaphragm cells (#6 and #8). The #7 circuit, containing 54 mercury type electrochemical cells, uses mercury cell technology which produces a higher strength and purity sodium hydroxide solution (48 – 52% by weight). The ability to produce high strength NaOH represents the main advantage of the mercury cell over the diaphragm cell.

Chlorine produced from the circuits is collected in headers, then cooled, dried, compressed, and liquefied. Chlorine is used onsite. In addition, it is shipped to customers via rail car or pipeline. The hydrogen and sodium hydroxide by-products are separated and used onsite or shipped to customers.

In the **Cal-Hypo Department (9.0**) a mixture of sodium hydroxide solution (NaOH) and hydrated lime ($CaOH_2$) are mixed with gaseous chlorine (Cl_2) to produce calcium hypochlorite [$Ca(ClO_2)$] which is widely used for water treatment and as a bleaching agent (bleaching powder). Calcium hypochlorite is considered to be relatively stable and has greater available chlorine than sodium hypochlorite (liquid bleach). The remainder of the process involves separating the calcium hypochlorite from the salt by-product then filtering out the calcium hypochlorite from the liquor. The filtered liquor is recycled back to the beginning of the process. The filtercake is dried, screened, and packaged for shipment.

The **Caustic Department (10.0)** receives cell liquor from the Chlorine Department at approximately 11% and 50% NaOH by weight in solution. The streams can be further concentrated to produce 50% and 73% NaOH solutions. This is accomplished through a series of three evaporators. The concentrated solution is sent to the DH process which removes any remaining NaCl and $NaClO_3$ salts by reacting the solution with anhydrous ammonia. After the reaction, the ammonia is then separated from the caustic solution and distilled for reuse. The caustic solution is further purified to remove any unwanted trace metals and conveyed to storage tanks. Most of the 50% NaOH solution is shipped offsite as product. The PELS and Calcium Hypochlorite Departments are also supplied 50% solution. In addition, a small portion of 50% NaOH undergoes further processing to remove impurities before being shipped to customers. A small amount of both final products is further concentrated to 73% caustic soda for shipment to customers.

In the **PELS™ Department (11.0)** 50% NaOH solution from the Caustic Department is concentrated to produce 100% NaOH pellets which are primarily used in the manufacture of household and industrial strength drain cleaners. The basic process uses steam to evaporate water from the 50% NaOH solution to make a more concentrated NaOH solution. The remaining moisture is driven off using a molten salt furnace fueled by natural gas to create anhydrous liquid NaOH which is then conveyed to the top of the prill tower where the liquid falls and is congealed in mid-air to form small aggregate prills which are cooled, screened, and stored in silos to be loaded as product. The product is packaged into drums, bags, trucks, or railroad cars for shipment to customers. Dust arising from product screening, storage, packaging, and loading is routed to a scrubber before being discharged to the atmosphere.

In the **Plant Paint Spray Booth (12.0)** section of the Title V permit the plant's paint spray booth is limited per permit R13-1664, and rules 45CSR7 and 45CSR30.

In the **Emergency Generators and Pumps (13.0)** section of the Title V permit the applicable requirements of 40 C.F.R. 63 Subpart ZZZZ are set forth for the plant's emergency power generators and fire water pumps, all of which are powered by compression ignition (CI) reciprocating internal combustion engines (RICE).

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	**Potential Emissions**	**2009 Actual Emissions** [1]
Carbon Monoxide (CO)	661[9]	275.78
Nitrogen Oxides (NO_X)	3,680[9]	1,323.33
Lead	4	0.06
Particulate Matter (PM_{10})[2]	960[9]	237.94
Total Particulate Matter (TSP)	960[9]	237.94
Sulfur Dioxide (SO_2)	15,000[4]	5,864.97
Volatile Organic Compounds (VOC)	100[5]	9.26
Hazardous Air Pollutants[3,8]	**Potential Emissions**	**2009 Actual Emissions**
Chlorine	3.3[6]	0.29
Mercury	1.1	0.11
Methylene chloride	2.5	1.8
Hydrochloric acid	661	327.44
Hydrofluoric acid	38[7]	15.02
Regulated Pollutants other than Criteria and HAP	**Potential Emissions**	**2009 Actual Emissions**
Ammonia	46	33.76
Reduced sulfur compounds (TRS)	90	40

[1] *Actual emissions (except ammonia and reduced sulfur compounds) are from the 2010 Certified Emissions Statement (CES) Invoice, and represent emissions from January 1, 2009, through December 31, 2009. Emissions of ammonia and reduced sulfur compounds are from 12/20/2011 permittee comments on the pre-draft permit.*

[2] *PM_{10} is a component of TSP.*

[3] *None of the above HAPs are counted as PM or VOCs, according to the 2010 CES.*

[4] *Potential SO_2 emissions have decreased in relation to the 2006 operating permit due to: a decrease in boiler mass limits, CS_2 and Inorganics Departments have been permanently shut down, which included the CS_2 Sulfur Recovery Unit, CS_2 Flare, CS_2 Vaporizer A, CS_2 Vaporizer B, and the Inorganics Flare.*

[5] *Potential VOC emissions have decreased in relation to the 2006 operating permit mainly due to permanent shutdown of the MCB Department.*

[6] *Potential chlorine emissions have increased in relation to the 2006 operating permit due to the addition of the HCl synthesis units.*

[7] *Potential hydrofluoric acid emissions have decreased in relation to the 2006 operating permit due to combustion of coal. The most recent data indicate that the amount in the coal has been much lower than in the past. The permittee has no control, however, over the amount of pollutant in the coal and is not certain if it will change. The PTE given above is based on the past five years of data.*

[8] *Certain HAPs listed in the 2006 operating permit fact sheet have no potential emissions for the renewal permit due to permanent shutdown of the MCB Department. The pollutants are: 1,2,4-Trichlorobenzene (120821); 1,4-Dichlorobenzene (106467); Benzene (71432); Carbon Disulfide (75150); Carbonyl Sulfide (463581); and Monochlorobenzene (108907).*

[9] *In the renewal application the potential emissions of CO, NO_x, PM_{10}, and TSP were given as 590 tpy, 6,189 tpy, 665 tpy, and 665 tpy, respectively. In technical correspondence (8/31/2011 email from permittee), the permittee revised these particular PTEs given in the renewal application. The potential CO, PM_{10}, and TSP emissions were recalculated by summing data from individual sources. The potential NO_x emissions were recalculated by summing data from individual sources, which reflects installation of low-NO_x burners.*

Title V Program Applicability Basis

This facility has the potential to emit 661 tpy of CO; 3,680 tpy of NO_x; 960 tpy of PM_{10}; 15,000 tpy of SO_2; 100 tpy of VOC; 661 tpy of hydrochloric acid; and 38 tpy of hydrofluoric acid. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Eagle Natrium LLC – Natrium Plant is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	PM from Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR7	PM from Manufacturing Sources
	45CSR10	Sulfur oxides limits
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits to Construct/Modify
	45CSR20	Good Engineering Practices as Applicable to Stack Heights
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for HAPs
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	40 C.F.R. Part 61, Subpart E	Mercury NESHAP. Must comply only with 40 C.F.R. Part 63, Subpart IIIII.
	40 C.F.R. Part 61	Asbestos inspection and removal.
	40 C.F.R. Part 63, Subparts F,G,H	Hazardous Organic NESHAP-MACT (HON).
	40 C.F.R. Part 63, Subpart ZZZZ	RICE NESHAP-MACT
	40 C.F.R. Part 63, Subpart DDDDD	Industrial/Commercial/Institutional Boilers and Process Heaters Major Source MACT
	40 C.F.R. Part 63, Subpart IIIII	Mercury MACT
	40 C.F.R. Part 64	Compliance Assurance Monitoring (CAM)
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR27	Prevent and Control the Emissions of Toxic Air Pollutants.
	45CSR40	Control of Ozone Season NOx Emissions

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Title V Permit Section	Dept.	Date of Issuance	Permit Determinations or Amendments That Affect the Permit *(if any)*
R13-1527	6.0	Brine	12/15/1992	
R13-1637A	4.0	Power - Boilers	11/17/2004	
R13-1664	12.0	Plant Paint Spray Booth	12/20/1993	
R13-2046F	7.0	HCl	3/12/2013	
R13-2886	10.0	Caustic	10/28/2011	
R14-027B	4.0	Power - Boilers	4/23/2008	
CO-R27-91-18	8.0	Chlorine Recovery	6/25/1991	Amended by CO-R27-98-39A(91)
CO-R27-98-39A(91)	8.0	Chlorine Recovery	6/02/1992	
CO-SIP-C-2003-27	3.0, 6.0, 8.0, 11.0	Facility-wide, Brine, Chlorine Recovery, PELS™	7/29/2003	
CAIR Permit Application	3.0	Power - Boilers	6/28/2007	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

In the following discussion, the terms “current permit” or “current Title V permit” mean the most recent permit R30-05100002-2006 (MM03), unless otherwise noted. The following discussion concerns changes to the most recent permit.

I. **45CSR2 – *To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers*.** Boilers 3, 4, and 5 have been tested during the current permit term in accordance with the schedule in permit condition 4.3.1. Based upon the test results, the language in condition 4.3.1. is modified in the renewal permit to specify the current test frequency for each boiler, and the deadline for completing the next testing. According to technical correspondence, the permittee has scheduled testing for Boiler 4 and Boiler 5 on January 15 and 16, 2013. The test results are typically submitted to DAQ within 60 days of completion of testing. Since report submittal will coincide with the review of the draft/proposed permit, inclusion of future test dates will be incorporated into the final permit.

II. **45CSR13 – *Permits for Construction/Modification*, Permit No. R13-2886, and Title V Permit Significant Modification (R30-05100002-2006, SM04).** On May 10, 2011, the permittee submitted a combined NSR and Title V significant modification application. Since the renewal application was due relatively soon (i.e., on June 28, 2011), the permittee requested in the modification application that the changes under the modification be integrated with the renewal

process. The changes associated with the significant modification are therefore incorporated into the renewal operating permit. The modification involves the metal cells regeneration system located in the Caustic Department, and a new NSR permit R13-2886 has been written to permit the construction and modification of equipment, which are described below.

Process Description

The purpose of the metal cells is to remove metals from sodium hydroxide by the process of electrolysis in order to meet customer specifications. Periodically, the metal cells must be regenerated to remove accumulated metals from inside of the metal cells. During the regeneration process hydrochloric acid is utilized to dissolve the accumulated metals. Currently, spent acid from the regeneration process is utilized in the plant pH neutralization system. The modified system will provide more storage capacity for the spent acid stream generated from the metal cells and will enhance mixing of the concentrated acid in the pH neutralization system. As part of the pH neutralization system, two large collection tanks are utilized to collect plant process waste waters for treatment prior to discharge through NPDES permitted Outlet 009. Modifications to the system will include the installation of a new tank and water scrubber, as well as modification of an existing tank that will also be routed to the new scrubber.

Emissions & Regulatory Synopsis

The Caustic Department currently does not have an associated R13 permit. However, there are two HCl storage tanks (V023, V024) with an associated scrubber (SC019) that are listed in the Title V permit and have permit requirements (cf. permit section 10). The emission increase due to the modification of the metal cells regeneration system is based on the maximum amount of hydrochloric acid that will be used for regenerating the metal cells at the maximum strength of 36% hydrochloric acid. Actual operation of the system will include the addition of condensate to the 36% acid stream which will reduce the strength of the acid. However, utilizing the maximum strength of the acid provides a conservative emission calculation. The regeneration process, on average, will only occur once per week. Approximately 1,500 gallons of acid will be utilized per regeneration. A design evaluation utilizing Aspen Modeler was completed by the permittee to design the scrubber and determine the operating parameters to yield a 99.9% reduction efficiency for HCl. Based upon the engineering evaluation for permit R13-2886, the total controlled emissions increase from new Emission Point ID# E998 will be 0.08 lb/hr and 2.53 lb/yr of HCl.

Permit No. R13-2886

Permit R13-2886 was issued on October 28, 2011, and pertains to sources in the Caustic Department; therefore, it is included in renewal permit section 10. The table below specifies how the underlying permit requirements are incorporated into the renewal permit.

R13-2886 Condition	Title V Condition	Explanatory Notes
4.1.1.	10.1.3.	Inserted directly into renewal permit.
4.1.2.	10.1.4.	Inserted directly into renewal permit.
4.1.3.	10.1.5.	Inserted directly into renewal permit.
4.1.4.	10.1.6.	Inserted directly into renewal permit.
4.1.5.	10.1.7.	Inserted directly into renewal permit.
4.1.6.	10.1.8.	After the language “listed in Section 1.0” the new language “of permit R13-2886 (*i.e.*, Metal Cells Tanks Scrubber SC162)” has been added to specify the applicability of this requirement and thereby avoid incorrectly applying the requirement to all control equipment listed in Section 1.0 of the renewal operating permit.
4.2.1.	10.2.2.	The referenced permit condition numbers were changed to match the conditions in the renewal operating permit.

R13-2886 Condition	Title V Condition	Explanatory Notes
4.4.1.	3.4.1.	This condition is identical to language in the operating permit's standard facility-wide language. However, since this underlying requirement applies only to sources and control devices in permit R13-2886, the applicability has been specified after the citation of authority for permit condition 3.4.1.
4.4.2.	10.4.1.	Same as above for underlying requirement 4.1.6.
4.4.3.	10.4.2.	Same as above for underlying requirement 4.1.6.
4.4.4.	10.4.3.	The referenced permit condition number was changed to match the condition in the renewal operating permit.
4.4.5.	10.4.4.	The referenced permit condition numbers were changed to match the conditions in the renewal operating permit.

The tanks V042 and V027, in addition to scrubber SC162, have been added to section 10.0 Caustic Department in the renewal permit emission units table (subsection 1.1.). For these tanks and scrubber, a determination regarding non-applicability of 40 C.F.R. Part 64 is included in this Fact Sheet, and has been included in renewal permit section 3.7.2.t.

Permit R13-2886 contains a Certification of Data Accuracy form; however, it is not mentioned in any requirement of that permit. Therefore, the form is not appended to the renewal operating permit.

III. **45CSR30 – Requirements for Operating Permits**. Certain conditions with underlying authority from this rule have been revised for the renewal permit. The purpose of the changes is to clarify and streamline the requirements.

a. In order to be more specific, the language "at least once per eight hour shift" was added to permit conditions 9.2.1. and 10.2.1. The permittee stated in technical correspondence[1] that this is the monitoring frequency.

b. Condition 9.4.1. is redundant with condition 3.4.2. and provides no additional requirements. Therefore, the condition language "Records of the operating data required by 9.2.1. shall be maintained for a period of at least five (5) years in accordance with 3.4.2. **[45CSR§30-5.1.c.]**" is replaced with "Reserved." The same rationale and change is made for condition 10.4.1.

c. The language "*(Emission Unit: E110 – HCl Tank Vent Scrubber)*" has been added before the citation of permit condition 10.2.1. to ensure clarity as to the applicability of the condition since a new scrubber SC162 has been permitted under R13-2886 and added to renewal permit section 10.

d. The language "A minimum of 95% of the readings of each parameter shall be available during each six month Title V reporting period." has been added to conditions 9.2.1. and 10.2.1. This was added based upon the permittee's comments[2] on the pre-draft permit. Additionally, the language "of each parameter" was added by this writer to condition 9.2.1. since multiple parameters are listed. The permittee suggested adding the language since it is consistent with requirement 4.4.4. of permit R13-2886. (Title V condition 10.4.3.).

[1] Email dated August 31, 2011 from Erika Bauldauff of the permittee's environmental department.
[2] Email dated December 22, 2011 from Erika Bauldauff, of the permittee's environmental department.

IV. **45CSR40 - Control of Ozone Season Nitrogen Oxides Emissions**. CAIR NO_X Ozone Season Trading Program requirements have been retained for Boiler #3, Boiler #4 and Boiler #5, as the trading program did not end on January 1, 2012. Refer to permit condition 3.1.10. Also, the appendix containing the CAIR Permit Application is Appendix C of the renewal permit.

V. **40 C.F.R. Part 63, Subpart ZZZZ – *National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines***. The affected engines are listed in subsection 1.1. of the renewal permit. According to technical correspondence[3], the engines are compression ignition (CI) engines; are less than 500-hp; and only function in an emergency capacity or activity in preparation for an emergency. Since the engines are stationary RICE located at a major source of HAP, the criteria of §§63.6585(a) and (b) are met, and the engines are subject to this subpart. Based upon the horsepower and construction dates of the engines, each engine is considered an existing stationary RICE since they were constructed before June 12, 2006 (cf. §63.6590(a)(1)(ii)). The engines do not meet the criteria of §63.6590(b); therefore, the engines are not stationary RICE subject to limited requirements. Also, the engines do not meet the criteria of §63.6590(c)(1)-(7); therefore, the engines do not meet the requirements of this subpart by complying with 40 C.F.R. Part 60 Subpart IIII. Table ZZZZ below provides an analysis of the applicability (and non-applicability) of the sections of this subpart to the engines and references the permit conditions that set forth the applicable requirements.

Table ZZZZ

Section	Condition	Discussion
Compliance Date		
§63.6595(a)(1)	13.1.1.	Each affected engine is considered an "existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions." Therefore, the compliance date is May 3, 2013. Since the compliance date is future at the time of this renewal, all other Subpart ZZZZ permit conditions end with a statement that makes each condition subject to the compliance date. This means that the conditions will not become effective until the compliance date.
Emission and Operating Limitations		
§63.6600	None	This section is not applicable since the engines are rated less than 500 brake HP.
§63.6601	None	This section is not applicable since the engines are existing and are compression ignition type.
§63.6602	13.1.2.	This section is applicable since the engines are existing; are rated less than 500 brake HP; and are located at a major source of HAP. This section refers to applicable emissions limitations in Table 2c to Subpart ZZZZ. In Table 2c, the applicable requirements are for an emergency CI RICE, which are given in Row #1 of the table. None of the other requirements in Rows 2 through 12 of Table 2c are applicable to the engines. Since the engines are not subject to non-startup emission limitations, this non-applicable language is not included in the last paragraph of the permit condition. Similarly, the language regarding black start stationary CI RICE is not included. The applicable requirements of Table 2c, Row 1, are considered "Work Practice Requirements". These are not the same as

[3] Email dated August 31, 2011 from Erika Bauldauff, of the permittee's environmental department.

Section	Condition	Discussion
		emission limitations and operating limitations described elsewhere in the regulation. Emission limitations are items such as reduction of carbon monoxide emissions and limiting the concentration of formaldehyde in the exhaust stream (cf. non-applicable Table 2a of the subpart). Operating limitations are items such as maintaining pressure drop across a catalyst, and maintaining exhaust gas temperature in a specified range (cf. non-applicable Table 2b of the subpart). However, work practices pertain to frequencies of oil changes, inspections of air cleaners and belts and hoses. The notes following Table 2c affirm that these requirements are work practice requirements. Further, §63.6640(a), Table 6, applicable Row 9, describes the requirements as "work or management practices." Based upon these distinctions, all associated MRR requirements in the regulation that pertain to emission limits and operating limits will not be included in the permit since they are not applicable to the engines.
§63.6603	None	This section is not applicable since the engines are located at a major source.
§63.6604	None	This section is not applicable since the engines are emergency units, and each engine's site rating is not more than 300 brake HP.
General Compliance Requirements		
§63.6605(a)	None	This section is not applicable since the engines are not subject to emission limitations and operating limitations of Subpart ZZZZ.
§63.6605(b)	13.1.3.	This general duty requirement is included in the permit.
Testing and Initial Compliance Requirements		
§63.6610	None	This section is not applicable since the engines are rated less than 500 brake HP.
§63.6611	None	This section is not applicable since the engines are existing.
§63.6612	None	This section is applicable since the engines are existing, and rated less than 500 brake HP at a major source. However, no specific requirements in §63.6612 apply to them, as is demonstrated below. §63.6612(a) refers to applicable requirements in Table 4 to Subpart ZZZZ. Row 1 of Table 4 can apply to CI stationary RICE that are complying with the requirement to reduce CO emissions. However, the engines not subject to any requirement to reduce CO emissions; therefore, §63.6612(a) does not apply. §63.6612(b) applies in the case when testing has already been performed. This requirement is not applicable to the engines.
§63.6615	None	This section is not applicable since the engines are not subject to emission limitations and operating limitations under Subpart ZZZZ.
§§63.6620(a) through (i)	None	This section is not applicable since the engines are not subject to emission limitations and operating limitations under Subpart ZZZZ.
§63.6625(a)	None	This section is not applicable since there is no CEMS for the engines.

Section	Condition	Discussion
§63.6625(b)	None	This section is not applicable since there is no CPMS for the engines.
§63.6625(c)	None	This section is not applicable since the engines do not fire landfill gas or digester gas.
§63.6625(d)	None	This section is not applicable since the engines are existing CI RICE.
§63.6625(e)	13.1.4.	The engines meet the criteria of §63.6625(e)(2), and are therefore required to comply with this section. The language of both §63.6625(e) and §63.6625(e)(2) have been combined for the permit condition. The non-applicable language "or black start" has not been included in the condition.
§63.6625(f)	13.1.5.	The engines meet the criteria of §63.6625(f), and are therefore subject to the requirement. The non-applicable language "or an existing emergency stationary RICE located at an area source of HAP emissions" has not been included in the condition.
§63.6625(g)	None	This section is not applicable since the engines are emergency CI RICE.
§63.6625(h)	13.1.2.	This section is applicable to the engines, and has already been included in the requirements of §63.6602, Table 2c, Row 1. Thus, this section is cited along with §63.6602 rather than writing a separate and redundant condition.
§63.6625(i)	13.1.6.	The oil analysis program is an option mentioned in footnote 2 to Table 2c of Subpart ZZZZ. The oil analysis program is set forth in a separate permit condition with non-applicable language not included.
§63.6625(j)	None	This section is not applicable since the engines are not SI RICE.
§§63.6630(a) through (c)	None	§63.6630(a) is not applicable since the engines are not subject to emission and operating limitations from Subpart ZZZZ. §63.6630(b) is not applicable since the engines are not subject to operating limitations from Subpart ZZZZ. The NOCS requirement of §63.6630(c) is not applicable since none of the requirements in §§63.6630(a) through (b) are applicable.
Continuous Compliance Demonstration		
§§63.6635(a) through (c)	None	§63.6635(a) is not applicable since the engines are not subject to emission and operating limitations from Subpart ZZZZ. §§63.6635(b) and (c) are not applicable since the engines are not subject to any continuous monitoring in Subpart ZZZZ.
§63.6640(a)	13.1.4.	Since the engines are subject to requirements of Table 2c of Subpart ZZZZ, this section requires compliance with applicable methods in Table 6 to Subpart ZZZZ. In Table 6, the requirements of Row 9 are applicable to the engines. However, it is the same language as in §63.6625(e). Rather than writing a separate and redundant condition, this section is cited with condition 13.1.4.
§63.6640(b)	13.5.1.	This applicable requirement requires the permittee to report deviations from the applicable requirements of Table 2c to Subpart ZZZZ. Non-applicable language in the regulation has not

Section	Condition	Discussion
		been included in this permit condition. Due to the requirement to report according to §63.6650, a parenthetical reference to the corresponding permit condition has been added at the end of the permit condition.
§63.6640(c)	None	This section is reserved.
§63.6640(d)	None	This section is not applicable since the engines are existing.
§63.6640(e)	13.5.2.	This section requires reporting when an applicable requirement in Table 8 to Subpart ZZZZ is not met. The engines do not meet any of the criteria for exemptions given in this section; therefore, a permit condition has been written.
§63.6640(f)(1)	13.1.7.	This section applies to the engines since they are existing emergency stationary RICE less than 500 brake HP at a major source.
§63.6640(f)(2)	None	This section is not applicable since the engines are rated less than 500 brake HP.
Notifications		
§63.6645(a)(5)	None	This section provides an exemption to the notification requirements (including the NOCS under 40 C.F.R. §63.9(h)) for an existing stationary emergency RICE. Since the engines meet these criteria, the notifications under §63.6645 do not apply.
§63.6645(b)	None	This section is not applicable since the engines are rated less than 500 brake HP.
§63.6645(c)	None	This section is not applicable since the engines are existing and rated less than 500 brake HP.
§63.6645(d)	None	This section is not applicable since an initial notification is not required. Requirements for initial notification are in §63.9(b), which is not applicable, in accordance with the determination regarding §63.6645(a)(5).
§63.6645(e)	None	This section is not applicable since the engines are existing.
§63.6645(f)	None	This section is not applicable since an initial notification is not required.
§§63.6645(g) and (h)	None	These sections are not applicable to the engines since no performance tests under Subpart ZZZZ are required.
Reporting		
§§63.6650(a) and (b)	None	These sections are not applicable to the engines since they meet none of the criteria in Table 7 to Subpart ZZZZ.
§63.6650(c)	None	This section is not applicable since it pertains to Compliance Reports, which are not required for the engines since they meet none of the criteria in Table 7 to Subpart ZZZZ (cf. §63.6650(a)).
§63.6650(d)	None	This section is not applicable since it pertains to Compliance Reports, which are not required for the engines since they meet none of the criteria in Table 7 to Subpart ZZZZ (cf. §63.6650(a)). Furthermore, this section is not applicable since the engines are not subject to emissions and operating limitations from Subpart ZZZZ.
§63.6650(e)	None	This section is not applicable since the engines are not subject to emissions and operating limitations from Subpart ZZZZ.
§63.6650(f)	13.5.3.	This section is an applicable requirement to report deviations (as defined in 40 C.F.R. §63.6675). This requirement is modified for insertion into the permit.

Section	Condition	Discussion
§63.6650(g)	None	This section is not applicable since the engines are existing and do not fire landfill gas or digester gas.
Recordkeeping		
§63.6655(a)	None	This section does not apply since the engines are not subject to emission and operating limitations.
§63.6655(b)	None	This section does not apply since neither CEMS nor CPMS are employed for the engines.
§63.6655(c)	None	This section is not applicable since the engines are existing and do not fire landfill gas or digester gas.
§63.6655(d)	None	This section does not apply since the engines are not subject to emission and operating limitations.
§63.6655(e)	13.4.1.	This section requires demonstration of continuous compliance using recordkeeping of the information required by §63.6625(e) and §63.6625(e)(2). The engines are existing stationary emergency RICE; therefore, they meet the criteria of §63.6655(e)(2). Hence, this recordkeeping requirement has been written in the permit. The regulation language "any of the following stationary RICE" in the last sentence has been replaced with the applicable language "an existing stationary emergency RICE."
§63.6655(f)	13.4.2.	The engines meet the criteria of §63.6655(f)(1); therefore, this section is applicable. The language of both §63.6655(f) and §63.6655(f)(1) have been combined to create one coherent and applicable condition.
§63.6660(a), (b), and (c)	13.4.3.	These applicable requirements have been written in the permit.

VI. **40 C.F.R. 63 Subpart DDDDD – *National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters*.** The compliance schedule language in permit condition 4.1.13. has been replaced with current standard language developed by DAQ to reflect the status of the regulation.

VII. **40 C.F.R. Part 64 – *Compliance Assurance Monitoring* (CAM).** Since they meet all applicability criteria in §64.2(a) and none of the exemptions in §64.2(b), CAM plans have been developed and submitted by the permittee for sources in Table 64A below.

Table 64A

Emission Unit	Control Device (pollutant controlled)	CAM Plan Summary Table (see below)
LU053 Rail Transfer	SC018 Scrubber (HCl)	64B
V187 #1 HCl Tank V188 #2 HCl Tank	SC022 Scrubber (HCl)	64B
V189 #3 HCl Tank V190 #4 HCl Tank V122 #5 HCl Tank LU054 Tank Truck Loading	SC023 Scrubber (HCl)	64B
V997 #1 HCl Transfer Tank V1036 #2 HCl Transfer Tank	SC160 Scrubber (HCl)	64C
R072 #5 Boiler	ES001 Electrostatic precipitator (PM)	64D

Emission Unit	Control Device (pollutant controlled)	CAM Plan Summary Table (see below)
R015 #4 Boiler	ES002 Electrostatic precipitator (PM)	64D
R011 #3 Boiler	FF001 Fabric Filter (PM)	64E

The CAM plan for devices controlled by SC018, SC022, and SC023 are identical since the monitored parameters and their acceptable ranges for each control device are the same. Table 64B summarizes the CAM plan for these sources and their respective control devices. Note that corresponding permit conditions are given in parenthesis throughout the CAM plan summaries where applicable.

Table 64B – CAM Plan for Scrubbers SC018, SC022, and SC023

	Indicator No.1 of 2	Indicator No.2 of 2
I. Indicator	Scrubber Influent Water Flow	Scrubber Effluent Water pH
Measurement Approach	Flow meters	pH probes
II. Indicator Range	A minimum of 6.0 gpm must be maintained while operating. An excursion is defined in 7.2.4.(a). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.10.).	The pH must be maintained between 0.45 and 10.0. An excursion is defined in 7.2.4.(c). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.10.).
QIP threshold	Permittee requests not establishing a QIP threshold in the permit renewal.	Permittee requests not establishing a QIP threshold in the permit renewal.
III. Performance Criteria		
- Data Representativeness	The flow meters are located on the water lines entering each scrubber.	The pH probes are located on the effluent water line of each scrubber.
- Verification of Operational Status	Not required because equipment is not new or modified.	Not required because equipment is not new or modified.
- QA/QC Practices and Criteria	The flow meters will be calibrated on an annual basis (7.3.1.).	The pH probes will be calibrated on a quarterly basis (7.3.2.).
- Monitoring frequency	Every 15 minutes to compute hourly averages (7.2.2.)	Hourly (7.2.3.)
- Data Collection Procedure	Data is collected through the Foxboro (or equivalent) process control system (7.2.2.)	Data is collected through the Foxboro (or equivalent) process control system (7.2.3.)
- Averaging Period	Daily per calendar day. At a minimum, a daily average must be determined with at least 18 hours of valid data (7.2.2.).	Daily per calendar day. At a minimum, a daily average must be determined with at least 18 hours of valid data (7.2.3.).

The CAM plan for #1 HCl Transfer Tank (V997) and #2 HCl Transfer Tank (V1036) controlled by scrubber SC160 is summarized in Table 64C.

Table 64C – CAM Plan for V997 and V1036 controlled by Scrubber SC160

	Indicator No.1 of 2	Indicator No.2 of 2
I. Indicator	Scrubber Influent Water Flow	Scrubber Effluent Water pH
Measurement Approach	Flow Switch	pH probe
II. Indicator Range	A minimum of 1.0 gpm must be maintained while operating. An excursion is defined in 7.2.4.(b). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.10.).	The pH must be maintained between 0.45 and 10.0. An excursion is defined in 7.2.4.(c). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.10.).
QIP threshold	Permittee requests not establishing a QIP threshold in the permit renewal.	Permittee requests not establishing a QIP threshold in the permit renewal.
III. Performance Criteria		
- Data Representativeness	The flow switch is located on the water line entering the scrubber.	The pH probe is located on the effluent water line of the scrubber.
- Verification of Operational Status	Not required because equipment is not new or modified.	Not required because equipment is not new or modified.
- QA/QC Practices and Criteria	An annual proof test will be completed on the flow switch (7.3.3.).	The pH probe will be calibrated on a quarterly basis (7.3.2.).
- Monitoring frequency	Every 15 minutes to compute hourly averages (7.2.2.)	Hourly (7.2.3.)
- Data Collection Procedure	Data is collected through the Foxboro process control system (7.2.2.)	Data is collected through the Foxboro process control system (7.2.3.)
- Averaging Period	Daily per calendar day. At a minimum, a daily average must be determined with at least 18 hours of valid data (7.2.2.)	Daily per calendar day. At a minimum, a daily average must be determined with at least 18 hours of valid data (7.2.3.)

The CAM plan for #5 Boiler R072 controlled by electrostatic precipitator ES001 is summarized in Table 64D. This plan will also be used for #4 Boiler R015 controlled by electrostatic precipitator ES002.

The post-control PTEs of PM from #5 Boiler and #4 Boiler are 346 tpy and 195 tpy, respectively. Since these are greater than the major source threshold, the monitoring frequency for one or more parameters must be at least four data values per hour (cf. 40 C.F.R. §64.3(b)(4)(ii)). Thus, the monitoring frequency for indicator 2 meets this applicable requirement.

Table 64D
CAM Plan for R072 #5 Boiler & ES001 Electrostatic Precipitator & CAM Plan for R015 #4 Boiler & ES002 Electrostatic Precipitator

Element	Indicator No. 1 of 4	Indicator No. 2 of 4	Indicator No. 3 of 4	Indicator No. 4 of 4
I. Indicator	Number of Modules on Precipitator T/R Cabinets in Service	Primary AC Voltage	Opacity monitoring	Emission testing
Measurement Approach	Visual verification of switch position.	Volt meters: 4 total on #4 Boiler and 8 total on #5 Boiler.	Method 9 Readings.	In accordance with 40 CSR 2A testing requirements (4.3.1.).
II. Indicator Range	On #4 Boiler: a minimum of 4 of 11 modules must be in service. On #5 Boiler: a minimum of 6 of 16 modules must be in service (conditions 4.2.1., 4.2.9.(a), and 4.2.10.(a)). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.10.).	At least 50 volts each (4.2.9.(b), 4.2.10.(b)). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.10.).	No greater than 10% (4.2.9.(c), 4.2.10.(c)). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.10.).	No greater than the respective weight emission standard (#4 Boiler: 44.6 lb/hr, #5 Boiler: 79 lb/hr) (4.2.9.(d), 4.2.10.(d)). Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 3.4.4., 3.4.5., and 3.5.10.).
QIP threshold	Permittee requests not establishing a QIP threshold in the permit renewal.	Permittee requests not establishing a QIP threshold in the permit renewal.	Permittee requests not establishing a QIP threshold in the permit renewal.	Permittee requests not establishing a QIP threshold in the permit renewal.
III. Performance Criteria - Data Representativeness	The T/R precipitator cabinets are an integral part of each ESP.	The voltage indicators are directly linked to the ESP modules.	The Method 9 readings are taken at the exhaust point of the boiler stacks to the atmosphere.	The testing takes place in the exhaust ductwork after each ESP.
- Verification of Operational Status	Not required because equipment is not new or modified.	Not required because equipment is not new or modified. However, if new equipment is installed to obtain data, it is subject to §64.3(b)(2) as specified in condition 4.2.9.(b) and 4.2.10.(b)	Not required because equipment is not new or modified.	Not required because equipment is not new or modified.
- QA/QC Practices and Criteria	During each check operators visually check the switch to determine it is still intact.	A new annual proof test will be implemented that confirms the voltage reading in Foxboro with a local output signal. The initial proof-test must be completed within 180 days after issuance of the renewal permit (4.3.2.).	Person taking the readings must have current Method 9 Certification (4.2.1.).	The testing company completes QA/QC requirements in accordance with the respective EPA methods requirements (4.3.1.).

Element	Indicator No. 1 of 4	Indicator No. 2 of 4	Indicator No. 3 of 4	Indicator No. 4 of 4
- Monitoring frequency	Once per eight hour shift (4.2.1., 4.2.9.).	At least four or more data values equally spaced over each hour (4.2.9., 4.2.10.).	Once per month (4.2.1.).	Every 1-3 years depending on prior test results (4.3.1.).
- Data Collection Procedure	Operator records on a logsheet (4.2.9.).	Equipment will be installed to integrate local readings into Foxboro, where the data will be collected and recorded. As a backup, data can be manually logged if Foxboro is unavailable (4.2.9.(b), 4.2.10.(b)).	Manually logged (4.2.1.).	An outside contractor performs the testing and collects the data.
- Averaging Period	Instantaneous; no averaging.	Average the four values polled each hour per §64.3(b)(4)(ii). Average the 24 hourly averages for a daily average (4.2.9., 4.2.10.).	The average of readings every 15 seconds over a 6 minute period (4.2.1.).	The average of three test runs.

Table 64E – CAM Plan for R011 #3 Boiler & FF001 Fabric Filter

Element	Indicator No. 1 of 4	Indicator No. 2 of 4	Indicator No. 3 of 4	Indicator No. 4 of 4
I. Indicator	Number of baghouse compartments in service.	Differential pressure across the baghouse.	Opacity monitoring	PM Emission Testing
Measurement Approach	A signal is fed into the Foxboro control system that outputs a display to determine if a baghouse compartment is in service (4.2.1.).	Differential pressure transmitter.	Method 9 reading (4.2.1.)	In accordance with 40 CSR 2A testing requirements (4.3.1.).
II. Indicator Range	A minimum of 5 of 8 of the baghouse compartments must be in service (4.2.1. and 4.2.12.(a)).	0.1 to 8 in. w.c. (4.2.12.(b))	No greater than 10% (4.2.12.(c))	No greater than the respective weight emission standard (10.27 lb/hr and 0.043 lb/MMBtu) (4.2.12.(d)).
QIP threshold	Permittee requests not establishing a QIP threshold in the permit renewal.	Permittee requests not establishing a QIP threshold in the permit renewal.	Permittee requests not establishing a QIP threshold in the permit renewal.	Permittee requests not establishing a QIP threshold in the permit renewal.
III. Performance Criteria - Data Representativeness	The baghouse compartments are an integral part of the baghouse.	This measurement is taken before and after the baghouse.	The Method 9 readings are taken at the exhaust point of the boiler stacks to the atmosphere.	The testing takes place in the exhaust ductwork after the ESP.
- Verification of Operational Status	Not required because equipment is not new or modified.	Not required because equipment is not new or modified.	Not required because equipment is not new or modified.	Not required because equipment is not new or modified.
- QA/QC Practices and Criteria	Prior to implementing CAM, every 30 days an inspection of the each compartment is completed. The frequency will be increased to twice per month (4.2.12.(a)).	A new annual proof test will be implemented that sends a known differential pressure to each transmitter and confirms the output with the known value. The initial proof-test must be completed within 180 days after issuance of the renewal permit (4.3.3.).	Person taking the readings must have current Method 9 Certification (4.2.1.).	The testing company completes QA/QC requirements in accordance with the respective EPA methods requirements (4.3.1.).
- Monitoring frequency	At a minimum, monitoring will be done at least twice per eight hour shift (4.2.12.(a)).	Twice per eight hour shift. (4.2.12.(b)).	Once per month (4.2.1.).	Every 1-3 years depending of prior test results (4.3.1.)
- Data Collection Procedure	Data will be collected through the Foxboro process control system. As a backup, data can be manually logged if Foxboro is unavailable (4.2.12.(a)).	Data will be collected through the Foxboro process control system. As a backup, data can be manually logged if Foxboro is unavailable (4.2.12.(b)).	Manually logged (4.2.1.).	An outside contractor performs the testing and collects the data.
- Averaging Period	Instantaneous; no averaging.	Daily (4.2.12.(b))	The average of readings every 15 seconds over a 6 minute period (4.2.1.).	The average of three test runs.

The post-control PTE for PM from #3 Boiler is 45 tpy. Since this is less than major source threshold, the monitoring frequency may be less than four data values per hour, but must be at least once per 24-hour period (cf. 40 C.F.R. §64.3(b)(4)(iii)). Thus, the monitoring frequency (at least twice per 8-hour shift) for indicators 1 and 2 meets this applicable requirement.

CAM and Boiler MACT Applicability to Particulate Matter Emission Standards
Boilers #3, #4, and #5 are PSEUs for particulate matter; thus, CAM plans have been developed to provide reasonable assurance of compliance with the PM limits in permit condition 4.1.4. On 12/23/2012, U.S. EPA proposed final regulation 40 C.F.R. 63 Subpart DDDDD (a.k.a., "Boiler MACT"). The regulation was finalized and published in the Federal Register on January 31, 2013. Since the boilers are subject to applicable PM limits in the Boiler MACT, the question is: "Are the PM limits in R14-027B, A.4. exempt from CAM via the exemption at 40 C.F.R. §64.2(b)(1)(i)?" The answer: No. It is determined that this exemption does not apply, which is further discussed below.

After review of the CAM regulation, and its preamble[4], it is determined that the permittee's boilers are still subject to CAM even though 40 C.F.R. 63 Subpart DDDDD, which established applicable PM limits, has been proposed. The following facts were used to make this determination:

1. The exemption is only for NSPS and MACT standards. 40 C.F.R. §64.2(b)(1) states: *Exempt emission limitations or standards*. The requirements of this part shall not apply to any of the following emission limitations or standards: (i) Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act.

2. The preamble for the CAM regulation elaborates on p.52, concerning the exemption in §64.2(b)(1)(i), it explains: "The Agency notes that this exemption does not apply to State emission limits or standards developed under section 111(d) of the Act."

Boilers 3, 4, and 5 are subject to State emission limits under R14-027B, A.4. While a preamble is not law, it does provide clarification and is a reliable source for interpreting the regulation. Considering the regulation exemption is specific to standards under sections 111 or 112, and the preamble states that this exemption does not apply to State limits, it has been determined that the State limits (permit condition 4.1.4.) are subject to CAM.

General & Facility-wide CAM Requirements
CAM requirements that apply to multiple sources have been written in the facility-wide section 3.0 of the permit instead of duplicating them in the source-specific sections of the permit. A parenthetical listing of sources is given in each citation to specify to which control devices the requirement applies.

Sources not subject to CAM
The sources in Table 64NA below are not subject to the requirements of CAM. Specifically, these sources have an associated control device; however, CAM is not applicable to them for reasons given. Sources at the facility without control devices (e.g., emergency generators and fire water pumps) are not listed below since they do not meet the applicability criterion at 40 C.F.R. §64.2(a)(2).

Table 64NA

Em. Unit ID	Control Device (pollutant controlled)	Rationale for Non-applicability
5.0 Power Dept. – Coal Handling		
C005 Coal Crusher	CD001 (PM)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard

[4] The preamble is located at http://www.epa.gov/ttn/emc/cam/campream.pdf and was accessed by the writer on 1/17/ 2013.

Em. Unit ID	Control Device (pollutant controlled)	Rationale for Non-applicability
		(i.e., 45CSR§2-5), and thus exempt from CAM requirements per §64.2(a)(1).
C011 A Belt	CD002 (PM)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard (i.e., 45CSR§2-5), and thus exempt from CAM requirements per §64.2(a)(1).
C012 B Belt C013 C Belt	CD003 (PM)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard (i.e., 45CSR§2-5), and thus exempt from CAM requirements per §64.2(a)(1).
C014 D Belt	CD004 (PM)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard (i.e., 45CSR§2-5), and thus exempt from CAM requirements per §64.2(a)(1).
C282 E Belt	CD005 (PM)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard (i.e., 45CSR§2-5), and thus exempt from CAM requirements per §64.2(a)(1).
5.0 Power Dept. – Flyash Handling		
B001 Flyash Silo LU001 Truck Loading	CD007 (PM)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard (i.e., 45CSR§2-5), and thus exempt from CAM requirements per §64.2(a)(1).
E001 Flyash Handling System	CY001 Primary Collector (PM)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard (i.e., 45CSR§2-5), and thus exempt from CAM requirements per §64.2(a)(1).
CY001 Primary Collector FF004 Secondary Collector B001 Flyash Silo	FF003 (PM)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard (i.e., 45CSR§2-5), and thus exempt from CAM requirements per §64.2(a)(1).
Flyash Handling System CY001 Primary Collector	FF004 (PM)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard (i.e., 45CSR§2-5), and thus exempt from CAM requirements per §64.2(a)(1).
6.0 Brine Dept.		
V273 Zero Discharge Collection Tank	FL002 Flare (H_2S)	Pre-control device potential emissions of all pollutants controlled by the flare are less than major source thresholds, and it is thus exempt from CAM requirements per §64.2(a)(3).

Em. Unit ID	Control Device (pollutant controlled)	Rationale for Non-applicability
SP007 Gas Separator	FL003 Flare (H_2S)	Pre-control device potential emissions of all pollutants controlled by the flare are less than major source thresholds, and it is thus exempt from CAM requirements per §64.2(a)(3).
7.0 HCl Dept.		
SU004 #1 HCl Synthesis Unit	SC159 Water absorber (HCl, Cl_2)	Water absorber SC159 meets the definition of *inherent process equipment* as the term is defined in 40 C.F.R. §64.1. The HCl Synthesis Units are package units that cannot produce HCl without the absorbers. The sole purpose of the absorbers is to make product. The regulation's definition of *control device* excludes inherent process equipment. Since the water absorber is not a control device as defined in §64.1, the emission unit SU004 does not meet the applicability criterion at §64.2(a)(2) and thus CAM does not apply to the source.
SU005 #2 HCl Synthesis Unit	SC161 Water absorber (HCl, Cl_2)	Water absorber SC161 meets the definition of *inherent process equipment* as the term is defined in 40 C.F.R. §64.1. The HCl Synthesis Units are package units that cannot produce HCl without the absorbers. The sole purpose of the absorbers is to make product. The regulation's definition of *control device* excludes inherent process equipment. Since the water absorber is not a control device as defined in §64.1, the emission unit SU005 does not meet the applicability criterion at §64.2(a)(2) and thus CAM does not apply to the source.
SU006 #3 HCl Synthesis Unit	SC163 Water absorber (HCl, Cl_2)	Water absorber SC163 meets the definition of *inherent process equipment* as the term is defined in 40 C.F.R. §64.1. The HCl Synthesis Units are package units that cannot produce HCl without the absorbers. The sole purpose of the absorbers is to make product. The regulation's definition of *control device* excludes inherent process equipment. Since the water absorber is not a control device as defined in §64.1, the emission unit SU006 does not meet the applicability criterion at §64.2(a)(2) and thus CAM does not apply to the source.
8.0 Clorine Dept.		
CE004 - #7 Circuit Hydrogen Purification	CS020 Contact Cooler (Hg)	The source does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus exempt from CAM requirements per §64.2(a)(3).
CE004 - #7 Circuit Hydrogen Purification	SC005 Brine Scrubber (Hg)	According to the emissions unit table in the permit, SC005 is associated with Em. Pt. ID# E039. Emissions of mercury (Hg) from E039 are subject to emission limitations or standards (condition 8.1.3.) proposed by the

Em. Unit ID	Control Device (pollutant controlled)	Rationale for Non-applicability
		Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act (i.e., 40 C.F.R. Part 63, Subpart IIIII), and are thus exempt from CAM requirements per §64.2(b)(1)(i).
CE004 - #7 Circuit Hydrogen Purification	SC006 Caustic Scrubber (Chlorine)	The source does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus exempt from CAM requirements per §64.2(a)(3). Further, CE004 is not subject to an emission limitation for chlorine; therefore, the unit is not subject to CAM requirements since the applicability criterion of §64.2(a)(1) is not met.
CE002-CE004 #6-8 Circuits	CA001, CA002 Carbon Absorbers (organic chlorides)	The source is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), and thus is exempt from CAM requirements per §64.2(a)(1).
CE003 #8 Circuit – Emergency Chlorine Scrubbing	SC008 Caustic Scrubber (Chlorine)	The source does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus is exempt from CAM requirements per §64.2(a)(3).
CE002 #6 Circuit – Emergency Chlorine Scrubbing CE004 #7 Circuit – Emergency Chlorine Scrubbing	SC009 Caustic Scrubber (Chlorine)	The source does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus is exempt from CAM requirements per §64.2(a)(3).
V889 HCl Tank	SC007 Scrubber (HCl)	The source is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), and thus is exempt from CAM requirements per §64.2(a)(1). Also, the source does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus is exempt from CAM requirements per §64.2(a)(3).
#7 Circuit - Cell Inlet Boxes - Hydrogen Degas / E320	A001, A002 Carbon Absorbers (Hg)	Emissions of mercury (Hg) from E320 are subject to emission limitations or standards (condition 8.1.3.) proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act (i.e., 40 C.F.R. Part 63, Subpart IIIII), and are thus exempt from CAM requirements per §64.2(b)(1)(i).

Em. Unit ID	Control Device (pollutant controlled)	Rationale for Non-applicability
SL014 Fluffing and Glove Box	FF008 Filter (asbestos)	The source does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus is exempt from CAM requirements per §64.2(a)(3).
Tail Gas, Sniff Gas, High Pressure Blowdown	SC010 Afterscrubber (Chlorine)	The source is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), and thus is exempt from CAM requirements per §64.2(a)(1). Also, device does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus is exempt from CAM requirements per §64.2(a)(3).
9.0 Cal-Hypo Dept.		
Cal-Hypo Dryside process vents	FF005 Baghouse (PM)	The source is not subject to an emission limitation. It is subject to an opacity standard only, which is not connected to a PM limit. Therefore the source does not meet the applicability criterion of §64.2(a)(1) and thus CAM does not apply to these sources. Additionally, FF005 meets the definition of inherent process equipment in §64.1. The purpose of the baghouse is to recover product and route it back to the system for processing.
B005 Dry Salt Bin (vents inside of building)	FF012 Fabric Filter (PM)	Device does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus exempt from CAM requirements per §64.2(a)(3). Also, the unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof) – it is only subject to a work practice standard (i.e., fugitive PM work practice standard of 45CSR§7-5), and thus exempt from CAM requirements per §64.2(a)(1).
VV001 Vacuum Vents on Wetside Equipment FF005 Baghouse KO002 Knockout Tank CY003 Secondary Cyclone CD008 Micro Venturi CY002 Primary Cyclone SP006 Spinner Separator	SC001 Caustic Scrubber (Chlorine)	The sources are not subject to an emission limitation. The emission point is subject to an opacity standard only, which is not connected to a PM limit or more importantly to the controlled pollutant (i.e., chlorine). Therefore the sources do not meet the applicability criterion of §64.2(a)(1) and thus CAM does not apply to these sources.
VV001 Vacuum Vents on Wetside Equipment FF005 Baghouse KO002 Knockout Tank	SC002 Caustic Scrubber (Chlorine)	The sources are not subject to an emission limitation. The emission point is subject to an opacity standard only, which is not connected to a PM limit or more importantly to the

Em. Unit ID	Control Device (pollutant controlled)	Rationale for Non-applicability
CY003 Secondary Cyclone CD008 Micro Venturi CY002 Primary Cyclone SP006 Spinner Separator		controlled pollutant (i.e., chlorine). Therefore the sources do not meet the applicability criterion of §64.2(a)(1) and thus CAM does not apply to these sources.
V448 #3 NaHS Storage Tank V449 #4 NaHS Storage Tank V994 #6 NaHS Storage Tank V1035 #7 NaHS Storage Tank V3126 #8 NaHS Storage Tank LU160/LU174 NaHS Tank Car/Tank Truck Transfer	SC073 NaHS Storage Tank Vent Scrubber (H_2S)	The sources are not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), and thus is exempt from CAM requirements per §64.2(a)(1).
PA002 Pail Packaging Unit	FF006 Fabric Filter (PM)	Device does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus exempt from CAM requirements per §64.2(a)(3). Also, the unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), and thus is exempt from CAM requirements per §64.2(a)(1).
B012 Lime Silo #1	FF002 Fabric Filter (PM)	The source is not subject to an emission limitation. The emission point is subject to an opacity standard only, which is not connected to a PM limit. Therefore the source does not meet the applicability criterion of §64.2(a)(1) and thus CAM does not apply to this source.
B014 Lime Silo #2	FF007 Fabric Filter (PM)	The source is not subject to an emission limitation. The emission point is subject to an opacity standard only, which is not connected to a PM limit. Therefore the source does not meet the applicability criterion of §64.2(a)(1) and thus CAM does not apply to this source.
10.0 Caustic Dept.		
V023, V024 Acid Tanks for pH Control	SC019 HCl Tank Vent Scrubber (HCl)	Tanks V023 and V024 each have a post-control device HCl PTE of 0.003 tpy. Since SC019 has a 99.9% control efficiency for HCl, the pre-control device PTE is (0.003 tpy)/(1-0.999) = 3 tpy of HCl. Thus, both V023 and V024 do not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and are thus exempt from CAM requirements per §64.2(a)(3).
V042, V027 Metal Cells Acid Tanks	SC162 Scrubber (HCl)	Both tanks do not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and are thus exempt from CAM requirements per §64.2(a)(3).

Em. Unit ID	Control Device (pollutant controlled)	Rationale for Non-applicability
11.0 PELS™ Dept.		
CN002 Anhydrous Concentrator	DE001 Wire Mesh Pad (NaOH)	The unit is not subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), and thus exempt from CAM requirements per §64.2(a)(1).
TR062 Prill Tower	SC068 Prill Tower Air Scrubber (NaOH dust, i.e., PM)	TR062 has potential post-control device PM PTE of 0.219 tpy. Since SC068 has a 98.5% control efficiency for PM, the pre-control device PTE is (0.219 tpy)/(1-0.985) = 14.6 tpy of PM. Thus, TR062 does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus exempt from CAM requirements per §64.2(a)(3).
LU002 Product Packing and Loading	SC069 Dust Scrubber (NaOH dust, i.e., PM)	LU002 has potential post-control device PM PTE of 0.219 tpy. Since SC069 has a 98.5% control efficiency for PM, the pre-control device PTE is (0.219 tpy)/(1-0.985) = 14.6 tpy of PM. Thus, LU002 does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus exempt from CAM requirements per §64.2(a)(3).
12.0 Plant Paint Spray Booth		
PB001 Paint Spray Booth	FF013, FF014 dry filters (particulate matter solids in paint coatings)	Device does not have potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, and thus exempt from CAM requirements per §64.2(a)(3).

VIII. Miscellaneous Changes

a. The section titles were modified and added in permit section 1.0 and subsection 1.1.

b. The citation of authority for condition 3.1.3. has been updated since 45CSR15 has been repealed and 45CSR34 now adopts 40 C.F.R. Part 61.

c. Condition 3.3.1.d. has been added to the Title V "boilerplate" and the citation of authority has been revised.

d. The citation of authority for condition 3.4.1. has been modified to clarify that R13-2046F, condition 4.4.1. applies only to the HCl Department in Section 7.0 of the permit. Similarly, clarification has been added that R13-2886, condition 4.4.1., applies only to certain sources in the Caustic Department.

e. Permit shield section 3.7.2.s. of the current permit is not included in the renewal since 45CSR26 has been repealed. This resulted in the subsequent current permit shield section (i.e., 40 C.F.R. 63 Subpart NNNNN) being revised to be renewal permit section 3.7.2.s.

f. The NO_x-Budget Trading Program (i.e., 45CSR1) requirements in current permit condition 3.1.9. are not included in the renewal permit since this rule has been repealed. Further, the NO_x-Budget application has been removed from being permit appendix A. Therefore, current permit appendices B and C are changed to renewal permit appendices A through B, and references to them have been revised in the renewal permit, which are:

   i. The reference to "Appendix B" is changed to "Appendix A" in conditions 4.2.1., 4.2.3., 4.4.1., and 4.4.6.
   ii. The parenthetical reference in condition 12.4.1. is changed from "Appendix C, Example Data Form IV" to "Appendix B, Example Data Form V". Note that the current permit condition was incorrect; therefore, the Roman numeral was changed from IV to V in the renewal permit condition.

g. The Greenhouse Gas Reporting Program (i.e., 45CSR42) requirements in current permit conditions 3.1.13. and 3.5.10. are not included in the renewal permit.

h. The reserved condition 4.1.8. of the current permit is removed for the renewal permit. This required revision to subsequent numbers in subsection 4.1. Also, references to affected condition numbers were changed in conditions 4.2.5., 4.2.6., 4.2.7., and 4.5.7.

i. The language "Total SO_2 emissions" was changed to "Total combined SO_2 emissions" in permit condition 4.1.8. to match the underlying permit.

j. The 5-year record retention language common among underlying permit conditions is redundant with facility-wide condition 3.4.2. Therefore, conditions that contain such language have been modified to refer to condition 3.4.2. The language "for a period of not less than five (5) years" has been replaced with "according to permit condition 3.4.2." The affected conditions are 11.4.1., 12.4.1., and 12.4.2.

k. Z005 was added to the heading of permit section 5.0 since it is among the affected emission points listed in permit subsection 1.1. pertaining to Power Department – Coal Handling.

l. The Discharge Knockout Drum (KO006) listed as a control device for T078 in permit Section 1.1 will not be included in the renewal permit. T078 is a tank that contains diaphragm slurry, and it is a non-controlled device. KO006 does not control any air pollutants emitted by T078. The knockout drum KO006 is used to separate air from the diaphragm filtrate before it goes to the process sewer. Since KO006 is not an air pollution control device, it has been removed from permit section 1.1.

m. The acronym "OAQ" is changed to "DAQ" in the Rules 2 & 10 Monitoring Plan, which is Appendix A of the renewal permit. This change affects only the last two paragraphs of the plan regarding revisions and implementation.

n. The language "and 9.1.2." has been added to condition 9.2.1. since the same monitoring is used to demonstrate compliance with the no visible emissions requirement for the two Lime Silos (B012 and B014).

o. The carbon absorbers A001 and A002 have been listed in the emission units table as control devices for the #7 Circuit Cell Inlet Boxes (Em. Pt. ID: E320). This is not new or additional equipment; rather, this reflects what is already permitted and existing.

p. According to technical correspondence (12/5/2011 email from the permittee), the SL015 Fluffing and Glove Box at No. 8 Diaphragm Cell Renewal with the filter FF011 were

removed from service and there are no replacement plans. Therefore, the emission unit and control device are removed from the emission units table of the permit.

q. The "#2 Dry Air Emergency Generator" (Em. Unit ID: G003) is renamed to the "West Chlorine Dry Air Emergency Generator" in permit subsection 1.1.

r. According to technical correspondence (12/4/2012 email from the permittee), the permittee is in the process of demolishing emission unit CE001 #5 Circuit located in the Chlorine Department. Therefore, the permittee requested that it be removed from the equipment table in permit section 1.1. The permittee currently has no replacement plans. Three references to this source are removed from permit subsection 1.1.

IX. **Response to U.S. EPA Comments on first proposed permit**. The proposed renewal permit was initially transmitted to U.S. EPA on January 3, 2012 (via email). Notice of the draft permit was published in the *Moundsville Daily Echo* on January 4, 2012. No public comments were received. However, after review of the permit, U.S. EPA informed DAQ that it intends to object to DAQ issuing the permit for various reasons. The reasons for objecting are detailed in the following re-stated comments, which were received from Mr. Mike Gordon, U.S. EPA Region III Office of Permits & Air Toxics, via electronic mail to the permit writer on February 3, 2012. DAQ has responded to the comments, and has made necessary changes in the proposed permit, which are detailed in the following discussion.

a. Permit Shield - Condition 3.7.2.t and fact sheet

A non-applicability determination/permit shield is given for CAM for the following emission units and their associated control devices: R072 #5 Boiler, R015 #4 Boiler, R011 #3 Boiler, LU053 Rail Transfer, #1-5 HCl tanks, LU054 Tank truck loading, SU004 #1 HCl synthesis unit, V997 #1 HCl transfer tank, SU005 #2 HCl Synthesis Unit, Cal-Hypo Dryside process vents, B005 Dry Salt bin, SC001 Caustic scrubber, SC002 Caustic scrubber, B012 Lime Silo #1, B014 Lime Silo #2.

The shield was given primarily on the basis that the "device is already subject to a continuous compliance determination method, as defined in §64.1" because the monitoring is more stringent than the §64.3(b)(4)(iii) requirement that data collection must be at least once per 24-hr period.

§64.3(b)(4)(iii) details the minimum data collection frequency for units subject to CAM with a post-control PTE less than major source thresholds. This is a requirement for the design of a CAM plan, not an exemption.

Also, a continuous compliance determination method has two criteria, one of which is that it "provides data either in units of the standard or correlated directly with the compliance limit." For example, reading pressure drop on a baghouse to determine compliance with a PM or opacity limit can't be said to be a continuous compliance determination method because it doesn't give output in opacity or lb/hr. From my experience and the background research I've done, this primarily means CEMS. Granting a shield from CAM on the basis that they are monitoring more than once a day, so it therefore meets the requirements of 64.2(b)(vi) is incorrect.

Based the fact sheet and permit the emissions units and control devices above are either subject to CAM or can't be exempted based on the info I have.

Response

Each of the sources listed in the first paragraph of the comment above were re-examined for applicability of CAM. All of the sources listed in the comment (with the exceptions of SU004 #1 HCl Synthesis Unit, SU005 #2 HCl Synthesis Unit, Cal-Hypo Dryside process vents, and B005 Dry Salt bin) were determined to be subject to CAM for an emitted pollutant. CAM plans for the affected sources were developed by the permittee, and their implementation into the operating permit is discussed above in the CAM section of this Fact Sheet. The rationales for the exemptions are given in Table 64NA in the CAM discussion.

b. 4.1.4 Boiler #3 has a 10.27 lb/hr PM limit and a 0.43lb PM/MMbtu limit beneath that. Based on the size of boiler #3 this doesn't seem to match up(0.43lb PM/MMbtu * 243 MMbtu/hr = 104 lb/hr). Why are the two limits there? There is no monitoring in the permit to demonstrate compliance with the PM limits in 4.1.4. If 4.2.1 is also intended to demonstrate compliance with the PM limits as well as opacity, that should be added to 4.2.1.

Response – Part 1: PM Limitation Discrepancy

The preliminary permit determination for R14-027 gives the following background information:

> On June 2, 1980, the permittee was issued permit R13-0518 for a modification of the "No. 3 Boiler" at their Natrium Plant located near New Martinsville, Marshall County, WV. The modification allowed the permittee to change the boiler set-up from stoker-fired to combusting pulverized coal. Prior to this modification the boiler had been shut-down for a long period of time. On October 8, 1980, EPA issued permit number PSD 79WV06 for the modification of Boiler No. 3. At the time of the modification, WV was not authorized as a SIP-approved state to run the PSD program or delegated by the EPA to administer the PSD program. Therefore, the required PSD permit for the restart of the boiler was issued by EPA.

The cover for permit R14-027 (issued by DAQ on 12/7/2004) states that it supersedes and replaces Permit R13-0558, issued on June 2, 1980, and EPA PSD Permit 79WV06, issued on October 8, 1980. Permit R14-027, condition A.4., contained the same limits as in current permit R14-027B. According to the cover page for R14-027, the type of modification under permit R14-027 was a "Modification of EPA-issued PSD permit to remove an excess oxygen limit on Boiler No. 3. The permittee has installed Low-NOx burners on Boiler No. 3 and optimal NOx reduction is achieved with higher oxygen levels." Since the changes under R14-027 did not affect PM limitations for Boiler No. 3, the limits must have been carried over from either the EPA-issued PSD permit 79WV06, permit R13-0518, or permit R13-0558.

This writer reviewed the file for superseded PSD permit 79WV06, and the maximum design heat input and particulate matter limits were found therein. Namely, Boiler No. 3 was permitted for 243 MMBtu/hr MDHI, and given TSP limits of 10.27#/hr and 0.043#/MMBtu. Thus, the current permit R14-027B, condition A.4., is incorrect by one decimal place. Further, the mathematics verifies this since (10.27 lb/hr) ÷ (243 MMBtu/hr) = 0.0422 lb/MMBtu.

In summary, the specific conditions in superseded PSD permit 79WV06 provides the origin of the PM permit limits for Boiler No. 3, and shows that the current PSD permit R14-027B should be corrected using appropriate permitting procedures. Final Title V permit condition 4.1.4. will be corrected to read 0.043 lb PM/MMBtu.

Response – Part 2: PM Compliance Demonstration
Section 4.2.1 and APPENDIX A - 45CSR2 & 45CSR10 Monitoring and Recordkeeping Plan are the Title V permit's intended means of compliance demonstration for the PM limits in 4.1.4. Additionally, the testing condition 4.3.1. is used to demonstrate compliance with the PM mass rate limitations. Thus, there is monitoring in the permit to demonstrate compliance with the PM limits in 4.1.4. To clarify that 4.2.1. is also used, and since the language is not verbatim from an underlying permit, the language "and PM mass rate (condition 4.1.4.)" has been added to the first sentence of that condition.

c. 4.1.5 Recommend changing "Annual" in the chart to 12-month rolling total, or add language to the condition clarifying.

Response
Clarifying language has been added to the condition.

d. 4.1.13 EPAs stay of the effective date of the boiler MACT was vacated on January 9, so this condition is no longer valid. If you need I can help you come up with wording to address this.

Response
DAQ has developed new Boiler MACT language based upon the January 9, 2012, decision by the U.S. District Court for the District of Columbia. The revised language will be included in the operating permit.

e. 4.4.5 Possible Typo - Change "associated daily average hourly and annual emissions" to "associated daily average, hourly, and annual emissions" or clarify.

Response
Condition 4.4.5. requires maintaining fuel consumption records for Boiler No. 6. The language in question is "associated daily average hourly and annual **consumption rates**", which is directly from underlying permit R13-1637A (bold font added here for emphasis that this is not emissions as stated in the comment). Condition 4.1.11. specifies hydrogen gas as the primary fuel, and limits the hourly consumption rate, and the annual consumption rate. Condition 4.1.12. does the same for the secondary fuel, natural gas. Thus, the "associated daily average" applies to the hourly consumption rate (for both fuels). This is determined from the fact that there is no "daily average annual consumption rate." Commas have been added to clarify this distinction of hourly consumption rates, and annual consumption rates.

f. 7.1.1 See comment on 4.1.5, make wording consistent with 7.1.2 and 7.1.3 - "continuous rolling twelve (12) month basis".

Response
The permit condition no longer contains annual limits based on permit R13-2046F which is included in the Title V permit; therefore, no change is now required.

g. 7.1.13 Same as above.

Response
The annual limits were removed with the issuance of underlying permit R13-2046E, and are not in R13-2046F, which is included in the Title V permit. Therefore, no change is now necessary.

h. 7.4.1-3 change "annual throughput" to "twelve month rolling total"

Response
Condition 7.4.1. no longer pertains to recordkeeping for annual throughputs. Therefore, no change is now necessary.

The underlying requirements 4.4.5. and 4.4.6. of R13-2046E that were set forth in conditions 7.4.2. and 7.4.3., respectively, have been deleted with R13-2046F, which is included in the Title V permit.

i. 12.1.2 Annual lb/yr limits need to be expressed as 12-month rolling totals.

Response
Clarifying language has been added to the condition.

X. **45CSR13 – *Permits for Construction/Modification*, Permit No. R13-2046E, and Title V Permit Significant Modification (R30-05100002-2006, SM05).** On October 16, 2012, DAQ received a combined NSR Permit and Title V Permit Revision application to increase the feed rates for the HCl Synthesis units in order to increase the HCl production rate. This permitting action was designated as permit revision R13-2046E for NSR, and as R30-05100002-2006 (SM05) for Title V. The multiple changes included in R13-2046E were revised, replaced, and superseded by new requirements in R13-2046F (described below).

XI. **45CSR13 – *Permits for Construction/Modification*, Permit No. R13-2046F, and Title V Permit Significant Modification (R30-05100002-2006, SM06).** On November 2, 2012, DAQ received a combined NSR Permit and Title V Permit Revision application to construct a third HCl Synthesis unit. This permitting action was designated as permit revision R13-2046F for NSR, and as R30-05100002-2006 (SM06) for Title V. Permit R13-2046F went to Notice on February 8, 2013, and the thirty-day public comment period ends on March 11, 2013. The following changes in Title V conditions are made based on the changes in draft permit R13-2046F.

a. Section 1.1. – 7.0 HCl Dept. – The #3 HCl Synthesis unit (SU006) and #3 Tails Tower (SC163) are added, as well as #2 HCl Transfer Tank (V1036).
b. Condition 7.1.1. – The entire condition is replaced with underlying permit requirement 4.1.1. The citation of authority in underlying 4.1.1.a. is corrected to be 45CSR§7-4.2.
c. Condition 7.1.2. – The entire condition is replaced with underlying permit requirement 4.1.2. The citation of authority in underlying 4.1.2.a. is corrected to be 45CSR§7-4.2.
d. Condition 7.1.3. (formerly 7.1.8.) – The condition from underlying permit requirement 3.1.7. has been included in the operating permit.
e. Condition 7.1.4. (formerly 7.1.9.) – The condition from underlying permit requirement 4.1.3. has been included in the operating permit.
f. Condition 7.1.5. (formerly 7.1.14.) – The condition from underlying permit requirement 4.1.4. has been included in the operating permit.
g. Condition 7.2.1. – The condition from underlying permit requirement 4.2.3. has been included in the operating permit.
h. Condition 7.2.2. – The condition from underlying permit requirement 4.2.2. has been included in the operating permit. The language from the underlying permit "These daily averages will be used to formulate a daily average which will…" has been changed to read "These **hourly** averages will be used to formulate a daily average which will…" The first sentence of the requirement makes it clear that the hourly averages are first computed from the data points polled every 15 minutes. Then, it is logical that the hourly averages are used to compute a daily average. In this context, it appears illogical and redundant to use daily averages to compute daily averages; therefore, the correction has been made in the operating permit.

i. Condition 7.2.5. – The condition from underlying permit requirement 4.2.1. has been included in the operating permit. Since the underlying requirement does not specify any emission unit ID or control device ID, the emission units have been added in parenthesis following the citation of authority.
j. Condition 7.4.1. – The condition from underlying permit requirement 4.4.4. has been included in the operating permit.
k. Deleted Example Data Forms in Appendix B that were deleted by R13-2046F. The deleted forms are: (1) Record of Total Tank Throughput; (2) Record of Total Load-Out Throughput; and (3) Record of Total Load-Out Emissions. The form numbers were revised for Certification of Data Accuracy under R13-2046F, and Daily VOC usage form under permit R13-1664.

The #2 HCl Transfer Tank (V1036) has also been added to Tables A and C in the CAM discussion of this Fact Sheet.

XII. **Permittee Name Change.** On January 7, 2013, DAQ received an Administrative Amendment application from the permittee to change the company name from "PPG Industries, Inc." to "Eagle Natrium LLC". This change has been made throughout the permit where necessary, including the 45CSR2 and 45CSR10 monitoring plan (appendix A).

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

a. **45CSR3** – *To Prevent and Control Air Pollution from the Operation of Hot Mix Asphalt Plants*: This regulation is not applicable to this facility because the facility is not a hot mix asphalt plant.

b. **45CSR5** – *To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas*: The coal handling facilities are subject to 45CSR2 in lieu of 45CSR5.

c. **45CSR17** – *To Prevent and Control Particulate Air Matter Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter*: The facility is subject to 45CSR2 and 45CSR7 in lieu of 45CSR17.

d. **45CSR21** – *Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds*: This regulation is not applicable to this facility because the facility is not located in Putnam, Kanawha, Cabell, Wayne, or Wood counties.

e. **45CSR29** – *Rule Requiring the Submission of Emission Statements for Volatile Organic Compound Emissions and Oxides of Nitrogen Emissions*: This regulation is not applicable to this facility because the facility is not located in Putnam, Kanawha, Cabell, Wayne, Wood, or Greenbrier counties.

f. **40 C.F.R. 60, Subpart D** – *Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971:* The maximum design heat input of coal Boiler No. 3 is 243 mmBtu/hr which is less than the applicable threshold of 250 mmBtu/hr. Boiler No. 3 was constructed before August 17, 1971 and was modified in 1980 from a stoker feed system to a pulverized coal feed system. The maximum design heat inputs of coal Boilers No. 4 and 5 are 496 and 878 mmBtu/hr, respectively, which exceed this subpart's applicability threshold of 250 mmBtu/hr. However, they are not subject to this subpart because they were constructed prior to August 17, 1971 and have not been modified since. The maximum design heat input of Boiler No. 6 is 181 mmBtu/hr which is less than the applicable threshold of 250 mmBtu/hr.

g. **40 C.F.R. 60, Subpart Da** – *Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978:* Applies to Electric Utility Steam Generating Units only. The maximum design heat input for Boiler No. 3 is 243 mmBtu/hr which is less than the applicable threshold of 250 mmBtu/hr. Boilers No. 4 and 5 were constructed prior to September 18, 1978 and have not been modified since. The maximum design heat input of Boiler No. 6 is 181 mmBtu/hr which is less than the applicable threshold of 250 mmBtu/hr.

h. **40 C.F.R. 60, Subpart Db** – *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units:* Boilers No. 3, 4, 5, and 6 are not subject to this subpart for the following reasons. The maximum design heat input of coal Boiler No. 3 is 243 mmBtu/hr which exceeds the applicable threshold of 100 mmBtu/hr. However, it is not subject to this subpart because it was constructed before June 19, 1984. The modification of this boiler in 1980 also predates the effective date of June 19, 1984. The maximum design heat inputs of coal Boilers No. 4 and 5 are 496 and 878 mmBtu/hr, respectively, which exceed this subpart's applicability threshold of 100 mmBtu/hr. However, they are not subject to this subpart because they were constructed prior to June 19, 1984 and have not been modified since. Boiler No. 6 was constructed in 1993 which is after the effective date of June 19, 1984, and its maximum design heat input is 181 mmBtu/hr which exceeds the applicable threshold of 100 mm Btu/hr, but because Boiler No. 6 burns primarily hydrogen gas (> 90%) and only occasionally natural gas (for flame stabilization purposes during start-up and shut-down, and for load stabilization purposes during times of inconsistent hydrogen feed), the fuel is not considered to be a fossil fuel and Boiler No. 6 is exempt from 40 C.F.R. 60 Subpart Db.

i. **40 C.F.R. 60, Subpart Dc** – *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units:* None of the boilers have a thermal rating within the applicability range of 10 to 100 mmBtu/hr.

j. **40 C.F.R. 60, Subpart Y** – *Standards of Performance for Coal Preparation Plants:* The coal handling facilities were constructed prior to October 24, 1974. In 1975, E belt and E hopper were installed. However, this installation did not result in an increase in emissions so the installation would not be considered a modification under this subpart.

k. **40 C.F.R. 60, Subpart VV** – *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry:* Hydrochloric Acid (HCl) is the only remaining Hazardous Air Pollutant emitted from the former MCB Process Area (re-named the HCl Production Area). HCl is not on the list of chemicals to which this Subpart applies (40 CFR §60.489); therefore references to this Subpart have been removed.

l. **40 C.F.R. 60, Subpart NNN** – *Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations.* A continuous flow to the atmosphere from a pressure relief valve on the Benzene Emissions/Vent Scrubber (emission point 017) originally triggered Subpart NNN. A process change involving the replacement of a nitrogen regulator with a new, improved regulator results in a good seal for the pressure relief valve and eliminated the continuous flow through the pressure relief valve (i.e., emissions only occur during startups, shutdowns, and process upsets). According to 40 C.F.R.§60.661, relief valve discharges are exempted from complying with the requirements of Subpart NNN. The permittee's request to modify R13-2046R to remove the compliance requirement for Subpart NNN (B.6. in the permit) and remove emission point E017 and its limits in Section A of the permit was granted on September 22, 1997 with the issuance of R13-2046R2.

m. **40 C.F.R. 61, Subpart J** – *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene.* This regulation is not applicable to the facility because benzene no longer utilized at this facility.

n. **40 C.F.R. 61, Subpart V** – *National Emission Standard for Equipment Leaks (Fugitive Emission Sources).* No equipment covered by this Subpart is in use at this facility.

o. **40 C.F.R. Part 61, Subpart Y** – *National Emission Standard for Benzene Emissions From Benzene Storage Vessels*. This regulation is not applicable to the facility because benzene is no longer utilized at this facility.

p. **40 C.F.R. Part 61, Subpart FF** – *National Emission Standard for Benzene Waste Operations*. This regulation is not applicable to the facility because benzene is no longer utilized at this facility.

q. **40 C.F.R. 63, Subpart Q** – *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers:* This regulation is not applicable to the facility because no chromium-based water treatment chemicals are used to condition the recirculation water in the cooling tower.

r. The facility is not subject to Title IV of the Clean Air Act, therefore requirements of Section 2.25., "Acid Deposition Control" are not applicable and the permittee is not required to certify compliance with them.

s. **40 C.F.R. Part 63, Subpart NNNNN**- *National Emission Standards for Hazardous Air Pollutants for Hydrochloric Acid Production.* The permittee does have a hydrochloric acid production area. However, #1 and #2 HCl Synthesis Unit (SU004) and the associated equipment installed for the unit are not subject to the MACT. This process is exempted in 40 CFR 63.8985(d) as it produces HCl through the Direct synthesis of hydrogen and chlorine and is part of a chlor-alkali facility.

t. **Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.** The facility has not made any changes that trigger a PSD modification; therefore, the requirements of the GHG tailoring rule are non-applicable.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application. In particular, the Package Sewage Treatment Plant (Em. Unit ID# WW001) was included in Attachment D of the renewal application. However, since there are no applicable requirements for WW001, and its Attachment E of the application states that it is an insignificant source, it will not be included in the renewal operating permit.

Comment Period

Beginning Date: 3/7/2013
Ending Date: 4/8/2013

All written comments should be addressed to the following individual and office:

Denton B. McDerment, PE
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Denton B. McDerment, PE
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Public Comments

No comments were received from the public, which includes the permittee.

U.S. EPA Comments

No comments were received from U.S. EPA.

Other Changes

The draft version of permit R13-2046F was included in the draft/proposed version of the Title V permit. Permit R13-2046F was issued by the Director on March 12, 2013. There were no changes to the draft of R13-2046F when it was finalized; therefore, there are no corresponding changes in the final Title V permit. The issuance date has been added to the Active Permits/Consent Orders table in this Fact Sheet, and to the table in subsection 1.2 of the final Title V permit.